

A. BORÉS.
ADJUSTABLE MATTRESS.
APPLICATION FILED JUNE 18, 1910.

983,118.

Patented Jan. 31, 1911.

FIG. 1

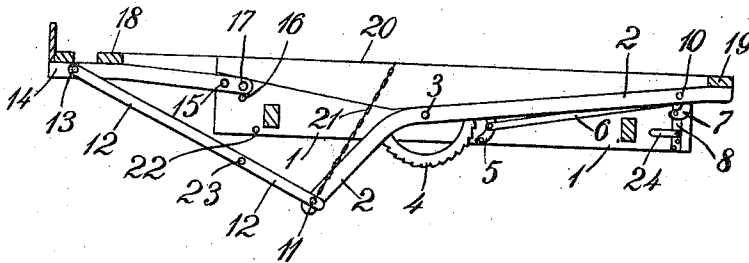


FIG. 2

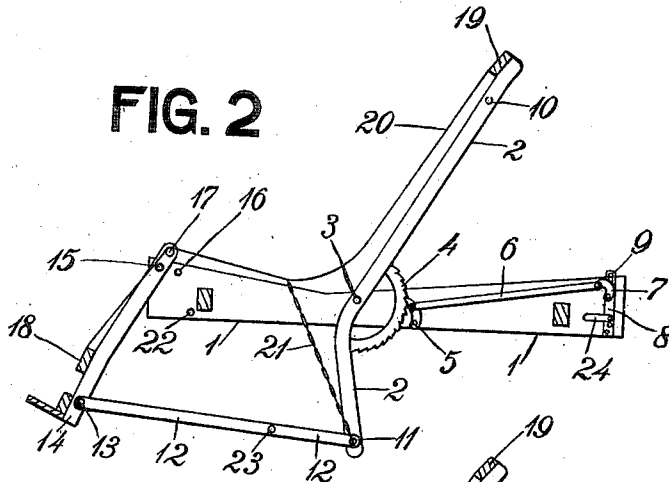
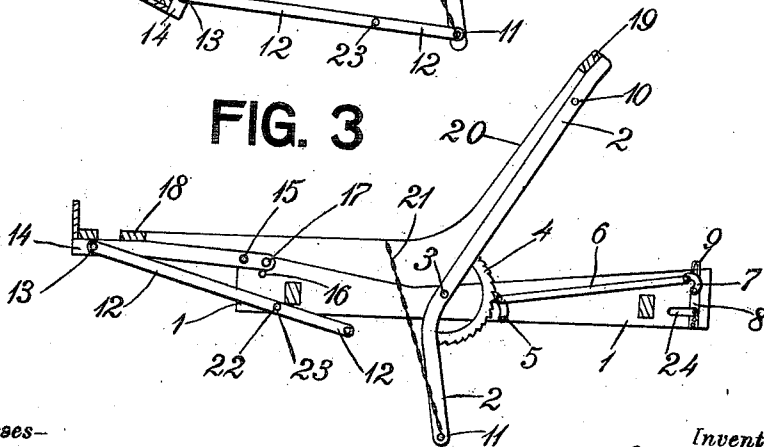


FIG. 3



Witnesses—

Stanley Wood

Henry William Blake

Inventor

Andrés Borés

by

W. E. Evans

Attorney.

UNITED STATES PATENT OFFICE.

ANDRÉS BORÉS, OF BARCELONA, SPAIN.

ADJUSTABLE MATTRESS.

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To all whom it may concern:

Be it known that I, ANDRÉS BORÉS, a subject of the King of Spain, residing at 44 Rue Carmen, Barcelona, Spain, merchant, have invented a certain new and useful Adjustable Mattress, of which the following is a specification.

This invention has for its object an adjustable mattress comprising members combined in such a manner that when the mattress is in its ordinary position on a bed, it can easily be raised from the head end or from the foot end so as to take the shape of an arm-chair and so that the person on the mattress can be brought without fatigue from a recumbent position into a sitting or bent position, which is very useful for invalids and for certain other cases. The members of the mattress are also arranged in such a manner that it is possible to raise simply the head part, the foot end undergoing no alteration.

The accompanying drawing shows by way of example a constructional form of the object of this invention.

Figure 1 is a longitudinal section of the mattress in its normal position to permit of lying down. Fig. 2 is a similar section, but with the mattress altered, the head portion being raised and the foot end being lowered, thus forming generally a kind of arm-chair. Fig. 3 is another and similar section showing simply the head portion raised.

Referring to the drawing, 1 represents the longitudinal portion of the mattress seat. On this portion is mounted a lever 2 pivoted at 3 and carrying a toothed sector 4. The teeth of this sector engage the end of a pawl 5 connected by a hinge to the end of a strap 6, the other end of which is also connected by a hinge to a member 7 the profile of which has a wedge-like shape. This member 7 is capable of producing a thrust on a blade spring 8 having a slot 9 intended to receive an extension or projection 10 provided integral with the lever 2. This lever is hinged at 11 to a strap 12, the other end of which is hinged at 13 to another lever 14 which oscillates around an axis 15. A stop is provided at 16 to limit the movement of the lever 14 which is provided at 17 with a rod which supports the cloth 20 of the mattress, the cloth being attached at its respective extremities to the cross bars 18 and 19.

At the hinge 11 is provided a rod to which are attached the ends of several chains 21,

the other ends being connected to the cloth 20. At 22 is provided a stop or projection which fits into an opening 23 formed in the strap 12. At 24 is shown a movable spring which is stronger than the blade spring 8 and which is intended to counterbalance the action of the latter when it is desired to put it out of action, which is carried out by turning the said spring 24 until it presses against the blade spring 8.

The mechanism described above is combined and mounted on the two longitudinal sides of the mattress, which are connected mechanically by the two rods 11 and 17 which extend over the whole breadth of the mattress.

The members being arranged as shown in Fig. 1 the mattress is then in the position required to receive a person lying down, the stability of the position being assured from the reception of the extensions or projections 10 in the slots 9 of the springs 8; as will be observed, in this position, the pawls 5 are detached from the teeth of the sector 4.

When it is desired that the mattress shall rest in the arm chair position shown in Fig. 2, it is sufficient to turn the pawls 5 in such a manner that their ends approach the teeth of the sectors 4. The straps 6 then cause the members 7 to oscillate, and the latter, owing to their wedge-like shape, cause the springs 8 to take a position such that the projections 10 remain outside the slots 9, and the head of the mattress can be raised and lowered to the required height, since it rests in the required position by engagement of the pawls 5 and the teeth of the sectors 4. By raising the head of the mattress and consequently causing the levers 2 to oscillate around their axes 3, the rod 11 exerts a pulling effect on the chains 21 and similarly the straps 12 with the levers 14 which causes the whole to move into the position shown in Fig. 2. It will be noted that in this position the side pieces of the foot section and the lower portion of the side pieces of the head section, will constitute legs or supports upon which the whole structure may rest when removed from the bedstead. It will be noted also that the foot section is pivoted at or near the end of the frame, so that when swung to the position shown in Fig. 1, the foot section extends well beyond the frame with no side obstruction. So, too, when the parts as-

sume the position shown in Fig. 2, there will be no part of the frame extending on each side to interfere with or discommode the occupant or user.

5 If it is desired to arrange the mattress so that the head can be raised without moving the corresponding foot portion, it is sufficient to disengage the rods 11 and to engage the extensions or projections 22 in the open-
10 ings 23; when the head is then raised, the mattress will take the position shown in Fig. 3.

For the purpose of controlling the pawls 5, handles in convenient position to be
15 grasped by the occupant are provided on the exterior of the longitudinal portion 1 which are not shown in the drawing so as to avoid complication. When it is desired to operate only one of the springs 8 for fixing the le-
20 vers 2, as may happen when the bed is set against a wall, it is sufficient to put the said spring out of action by causing the other and stronger spring 24 to act against the first. If desired, the two pawls 5 at the
25 sides of the mattress can be joined by a rod so that on operating one of them, the other is acted upon at the same time.

When mattresses are constructed of which only the head is to be movable, the levers 14
30 and the members connected with them can be dispensed with, the foot portion being made rigid and other useful modifications being provided. It may further be re-
35 marked that all kinds of accessories can be combined with this type of mattress, such as beds, tables and the like. These mat-
tresses may also be arranged so that they form an integral portion of the beds,
40 couches or other movable furniture on which they are mounted, or they may be joined or combined with other parts of these movable
pieces of furniture.

The mechanical elements described above may of course be modified in form or ar-
45 rangement without departing from the essence of the invention.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a device such as described, the com-
50 bination with a frame adapted to be removably mounted upon a bedstead or other

support, of a head section embodying side pieces pivoted intermediate their ends to said frame, a foot section embodying side pieces pivoted near the front of said frame, 55 connections between said sections for causing their simultaneous movement, whereby when said head section is elevated the lower portions of the side pieces of the head section and the side pieces of the foot section 60 will be swung down below the frame forming supports upon which the device may rest when removed from the bedstead.

2. In a device such as described, the combination with a frame adapted to be remov- 65 ably mounted in a bedstead or other support and embodying a foot and head section carrying a flexible fabric and angularly adjustable with relation to the frame, of hold-
ing means for holding the head section in 70 adjusted position, a lock for locking the head section in its lowermost position, means for releasing said lock, and a connection between said holding means and locking means 75 whereby when the holding means is moved into operative position the release of the lock is effected.

3. In a device such as described, the combination with a frame adapted to be remov- 80 ably mounted in a bed or other support and embodying head and foot sections carrying a flexible fabric and angularly adjustable with relation to the frame, a
toothed sector carried by the head section, a pawl carried by the frame and coöperating 85 with the sector to hold the head section in adjusted position, a lock for locking the head section to the frame when in its lower-
most position, means for releasing the lock, means for moving the pawl into and out 90 of engagement with the sector, and a connection between the pawl and lock releasing means whereby when the pawl is moved
into engagement with the sector the release 95 of the lock will be effected.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

ANDRÉS BORÉS.

Witnesses:

MONET SNVÁN,
HENRY MARTINEZ.